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ABSTRACT

An overview is provided of Arapahoe Community College's (ACC's) efforts to improve undergraduate education and the success of those efforts. After outlining changes made in the transfer, vocational education, and developmental studies programs, the report identifies new strategies that have been adopted to disseminate information about accountability and briefly highlights minority student enrollment increases. The next section of the report presents data and recommendations concerning: licensure and certification exam pass rates and student satisfaction measures for vocational education; retention and completion rates; alumni satisfaction with the transfer program; student services evaluation; student satisfaction with the adult eucation program; information on business and industry services; activities to improve multicultural awareness; and efforts to improve the acountability process. Appendices comprise the bulk of the report, providing detailed information on: (1) College Algebra students' scores on the Calculus Readiness Test; (2) instructors' guidelines for Freshman Composition; (3) student responses to journal writing in an Introduction to Literature course; (4) ACC's efforts to promote communication skills across the curriculum; (5) findings from ACC's tracking system for developmental studies and English as a Second Language students; (6) student responses to an experimental Leadership Development course; (7) minority student enrollments; (8) participant satisfaction with vocational and transfer programs and business and industry training, including survey instruments; and (9) retention/persistence and transfer. (ECC)

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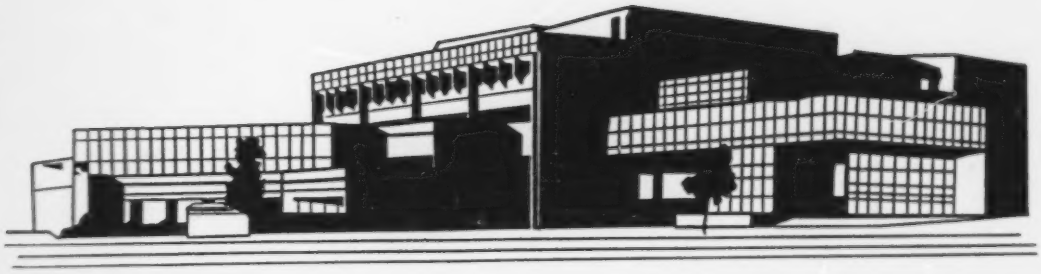
ED 366 375

Accountability Report

To Assess The
Effectiveness of Undergraduate Education
At
Arapahoe Community College



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October 1, 1993

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October 1, 1993

Colorado Commission on Higher Education
1300 Broadway, Second Floor
Denver, CO 80203

Dear Ladies and Gentlemen of the Commission:

In its 27th year of operation, Arapahoe Community College serves the residents of the State of Colorado and the college's assigned service area of Arapahoe, Douglas, and Jefferson counties.

As a state-supported institution of higher education, the college is pleased to be able to demonstrate its good stewardship to the people of Colorado through the Accountability process.

The college has developed a planning process that encourages broad-based participation on the part of faculty and staff in providing appropriate measures of assessment and effectiveness, and in using these measures to improve the quality of our educational services to students. ACC's *Accountability Plan* has been used as a model by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools in meeting our regional accrediting body's mandate for institutional assessment.

Enclosed is the *1993 Report to Assess the Effectiveness of Undergraduate Education at Arapahoe Community College*, in compliance with the requirements established by the Commission.

Sincerely,

James F. Weber, Ph.D.
President

Enclosure

ACCOUNTABILITY REPORT TO ASSESS THE EFFECTIVENESS OF UNDERGRADUATE EDUCATION AT ARAPAHOE COMMUNITY COLLEGE

OCTOBER 1, 1993

1. Changes in Teaching, Curricula and Learning

The Transfer Program

Math

Based on recommendations in the 1991-92 report, the math faculty adopted a new textbook for College Algebra (1992-93) which includes more graphing, calculator, and computer applications. Faculty are still adjusting to the text but believe that the students' have improved their visualization skills and overall mathematical reasoning ability.

In 1992-93, ACC College Algebra students performed as well as students at comparable institutions nationwide in their ability to apply qualitative and quantitative reasoning skills and objectively analyze and synthesize data (see Appendix A). Item analysis showed that students' visualization skills and overall mathematical reasoning ability improved over 1991-92. However, students appear to have difficulty applying known problem-solving methods to novel problems.

Recommendations. The Math Department made the following recommendations:

a. Develop strategies to help students improve their problem-solving skills.
b. Analyze wrong answers on the MAA Calculus Readiness Exam to provide insight into improving instruction. (This analysis has already begun.)

Speech

Based on recommendations in the 1991-92 report, the Speech faculty adopted a new text for SPE 115 effective Fall 1993. The new text provides more emphasis on critical thinking than did the previous text and addresses the issue of ethics in public speaking, which the previous text did not address at all.

Recommendation. The Speech Department recommended that a task force consisting of the full-time and adjunct Speech faculty meet (summer 1993) to examine assessment measures to prepare for the school year and to discuss the possibility of using a limited number of uniform lectures, hand-outs, etc., which stress concepts contained in several Accountability Objectives.

English

Based on the recommendation in the 1991-92 report, during the 1992-93 school year, the English Department initiated the first stages of a curriculum review for ENG 121-122 (Freshman Composition I and II). Departmental committees involving full-time and adjunct faculty discussed curriculum issues and concerns and produced more precise statements of objectives for ENG 121 instructors (see Appendix B). The objectives, in turn, clarified the prerequisites for ENG 122.

As a resource for critical thinking in ENG 121-122, the department adopted the 1993 edition of the *American Heritage Dictionary*, whose comprehensive listings and synonymies are particularly relevant to critical thinking skills.

The installation of a computer center for Humanities and Social Science students made it possible for one of the members of the department to begin requiring her literature students to use computer-assisted-instruction programs she developed to facilitate critical thinking in dialogic journals. Students generally reported formally and informally (a) that the programs are helpful in writing journals, (b) that journal writing helps them read more critically and (c) that journal writing contributes to their learning in the course (see Appendix C). The instructor has made the tutorials available to any other teachers who wish to recommend or require them.

Recommendation. The English Department recommended that during the fall semester 1993, members of the department formally review ENG 121 and 122, comparing ACC's curriculum to curriculum at other community colleges and four-year institutions in Colorado, revising standard syllabi and developing additional instructor guidelines, working out improved procedures to support and guide adjunct faculty, and exploring measures to be used for the anticipated formal assessment of English in 1994-95.

Promoting Communication Skills Across the Curriculum

In response to the 1991-92 Accountability Report, the Transfer Education Committee for Accountability considered the idea of revising and publishing an earlier English Department pamphlet on promoting student literacy in all disciplines. However, the committee decided that a more comprehensive approach was needed. Because communication skills were identified by some employers as a weakness in graduates in the occupational-vocational programs of the College and because communication skills have been identified as a general weakness in the national work force, the committee felt that stronger efforts were warranted. Thus, the Transfer Education and the Vocational Education accountability committees met jointly and organized a series of meetings for the 36 department chairs of the academic and vocational disciplines to discuss ways of promoting communication skills across the curriculum. As an initial part of this process faculty members inventoried goals relating to communication skills, current activities, and problem areas. (See Appendix D for reports of the proceedings, including some suggestions for addressing problems.)

Recommendation. Recommend that the College establish a committee to promote communications across the curriculum and support faculty in this effort.

VOCATIONAL EDUCATION

Several changes were the result of the general increase in emphasis on accountability. Six business courses were redesigned to improve the delivery of instruction and instructional climate, focusing on creating a collaborative learning environment. In the four courses which were taught fall and spring, students became more self-directed and assumed more responsibility for assignments outside class time. Revisions in two of the courses will be implemented fall of 1993.

Other changes will be implemented fall 1993. International Marketing has targeted improving students' awareness of cross-cultural understanding. The new textbook includes recent global changes with an emphasis on the strategic implications of marketing in various countries and cultures. Expanded topics include developing global awareness, cultural dynamics in assessing global markets, and business customs and practices in global marketing. The Business Administration program will use new textbooks to increase cross-cultural understanding, applied communication skills and interpersonal skills, and Bus 251 (Personal Leadership Development) is designed to cultivate effective interpersonal skills. The Accounting faculty will use a book which includes a discussion of ethics in the accounting environment. The Electronics Technology Department (in conjunction with the Media Center) developed a proposal to purchase a multi-media system which will be used to develop computer-assisted modes instruction and student assistance. The system was purchased during the spring of 1993, and an instructor will use his sabbatical leave 1993-94 to develop pilot instructional packages. The Medical Office Assisting program redesigned its curriculum in response to input from industry representatives.

DEVELOPMENTAL STUDIES

In response to recommendations in the 1991-92 report, the College focused on the question of whether "Students completing developmental studies...can read, write, compute, and apply study skills at a level necessary to function in college level classes," particularly since student success in classes can be a function of several factors other than basic skills. Tracking was used to assess the effectiveness of courses in preparing students for subsequent college-level courses, particularly comparing developmental studies students with peers who waived assessment advice to take developmental reading, English, and/or mathematics. These two groups are most appropriate for study because differences in subsequent achievement should reflect the power of intervention strategies to raise their basic skills to entry levels. Moreover, intervention strategies should not be expected to raise their skills to the level of students who matriculated with college-level skills.

Reading, English, and Math. On average, developmental studies students earned higher grades than waiver students in General Psychology I and College Algebra (MAT 121), but slightly lower grades in English Composition I. Moreover, completion rates were higher for developmental studies students than for waiver students (see Appendix E). However, the results are very difficult to interpret. For example, group sizes varied greatly, particularly in Reading and English. Second, it is impossible to control for historical factors (e.g., qualitative and quantitative differ-

ences in intervening courses; the effect of time lapse between completing ENG 095 and ENG 121/131; and lack of opportunity to apply writing skills ... other courses—see related issues in "Promoting Communication Skills Across the Curriculum," p 2). Third, some students are able to enroll in courses without being advised. Fourth, MAT 060, the only math course classified as a developmental studies course is not a gateway course for MAT 121 (the CORE specifies MAT 115 as the prerequisite).

G.E.D. Because G.E.D. students differ from most ACC students, it is difficult to interpret G.E.D. results in terms of completion, retention, or subsequent achievement in college-level courses (see Appendix E). A continuing problem with G.E.D. is failure to complete the program.

Study Skills. Because Study Skills is not a gateway course, but instead prepares students for *all* college-level classes, in 1991-92 the department decided tracking was not appropriate. However, the department now believes that alternative assessment tools might provide useful assessment information.

ESL. ESL 092 continued to be effective in preparing international students for college-level composition; 77% of the 56 students completed ESL 092 with a grade of C or better (up from 70% in 1991-92). Of the students who took ESL 092 in the fall, 82% compieted ENG 121 or 131 with at least a C grade in the spring. (See Appendix E.) The ESL faculty decided that the pre- and post-tests were invalid measures of the success of international students in college, and will continue to use the Michigan Test of English language proficiency to place students in ESL classes.

Recommendations.

a. Develop an institutional system for tracking the waiver process.
b. Develop a more comprehensive tracking system.
c. Develop non-tracking methods to assess the effectiveness of Reading, G.E.D., and Study Skills (e.g., student satisfaction surveys and self-reports in subsequent classes).
d. Recommend to the State Developmental Studies Task Force that MAT 111 and 114 be reclassified as developmental studies courses or that MAT 060 be treated as a gateway course to MAT 111/114.
e. Establish time limits for completing units in G.E.D. to help students set realistic goals.
f. Consider additional methods to help students meet their G.E.D. goals.
g. Expand the goal of ESL 092 to include preparation for success in all college-level classes.
h. Expand the objectives of ESL 092 to include summarizing skills.
i. Add the following measures of success: (1) There will be no significant difference between the GPAs of ESL 092 students who subsequently take ENG 121/131 and qualified international students who directly enter ENG 121/131; (2) ESL 092 students will subsequently maintain at least a C average in their college-level classes.

OTHER

In the summer of 1992, ACC sent two faculty members to a Phi Theta Kappa workshop on developing leadership skills within courses. As a result, ACC has instituted a team-taught leadership development course which integrates academic and vocational education, utilizing a small-group, hands-on approach in learning leadership skills (see Appendix F). The students in the pilot course generally rated the course positively (see Appendix F).

Recommendations. The instructors and Phi Theta Kappa recommended that:

a. The course be offered again in the fall and that in the spring of 1994 it be double listed as an offering in Business and in Humanities.
b. Students be provided the opportunity to obtain a leadership certificate if within 12 months they write about a specific follow-up experience in which they took a leadership role.
c. The course be publicized to promote more student interest.

2. NEW INSTITUTIONAL STRATEGIES FOR REPORTING ASSESSMENT

The Transfer Committee will include data and information from the official Transfer Accountability Report in its Transfer Program brochure, which is distributed to students and used as a tool

in marketing and recruiting. The committee will also recommend that the *Rapp Street Journal* (the student twice-monthly newspaper) periodically publish information about accountability.

3. Minority Student Data

Since 1988, student ethnicity enrollments at ACC have gradually increased to approximately 10 percent of the student population. These figures closely mirror the ethnic make-up of ACC's service area and the ethnicity of ACC graduates for the 1992-93 academic year (see Appendix G). There are no statistically significant differences in term-to-term retention/persistence rates based on declared ethnicity (see Appendix I).

4. Data

a. General Education (See part 1 of the report.)

b. Discipline-specific Education

Vocational Education

Licensure and professional certification exams provide reliable and valid measures of student attainment of professional standards. The 1992-93 report includes the results of student attainment in Law Enforcement, Nursing, Physical Therapy and Real Estate, with pass rates above 97% on three of the exams; all exceeded ACC's criterion rate of 75% (see Appendix H).

A totally redesigned student satisfaction survey was distributed to graduating students at the end of the semester in classes, with stamped self-addressed return envelopes. The response rate remained a problem, with less than 26%, compared to 29.5% in spring 1992. Following the recommendation of the 1992-93 Report, the student satisfaction surveys identified specific program areas or majors of the respondents. Overall, students who responded said they were satisfied with instruction, curriculum, and institutional climate. Satisfaction with facilities and equipment indicated several problem areas, particularly room temperature, appropriate seating, equipment which meets industry standards, and lab schedules. A major goal in 1992-93 was to increase student satisfaction with advising/counseling above the 73% last year. The data suggest that while there was apparent improvement, there is still room for improvement, particularly related to scheduling and planning (75.4%). Low response rate limits the interpretation of much of the data. (See Appendix H.) Data have already been shared with appropriate administrators and steps are being taken so that new desks will be more comfortable, and lighting and temperatures/ventilation will be improved.

Exit interviews, conducted prior to graduation in May 1993, were another vehicle for determining student satisfaction. Of the 258 who participated, 85% had identified their goal as a degree or certificate when they matriculated at ACC; 98% said they felt their education at ACC would help them in a future job. (See Appendix H for more information.) However, the faculty concluded that overall the exit interview does not warrant future use because it poses validity problems (e.g., response bias) and, at the time of the interviews, too many students are not employed in jobs relating to their profession.

Recommendations. The Vocational Education Accountability Committee recommended that:

1) Vocational Education continue to utilize licensure and professional certification exams, whenever available, as one measure of student achievement.
2) Vocational Education make an effort to increase the graduating-student response rate on satisfaction surveys across all vocational programs to accommodate useful data collection related to the quality of instruction.
3) Instructional divisions conduct additional research to ascertain if lab schedules can be adjusted to better accommodate students' schedules.
4) Vocational Education support the implementation of the Faculty Advising program.

5) Vocational Education support the Transfer Education recommendation that the College establish a committee to promote communications across the curriculum.
6) Vocational Education improve the administration of the Student Satisfaction Survey (timeliness, recording of numbers distributed, etc.).
7) Vocational Education provide incentives to increase the response rate of the Student Satisfaction Survey.
8) Vocational Education discontinue the exit interview process and include productive questions from the exit interview in the Student Satisfaction Survey and the Employer Satisfaction Survey.

c. Retention and Completion

ACC exceeded its goals for retention, completion, and transfer in all but one area: "equaling or exceeding the state average transfer rate for AA/AS graduates" in 1992-93 (see Appendix I). The latter may reflect a significant number of ACC students transferring to non-public state institutions or transferring without completing a degree. However, during the past five years, ACC's *portion* of state graduates who transferred increased for both AA/AS graduates and total graduates.

Recommendation. Re-examine the issue of transfer rates.

d. Alumni Satisfaction

Transfer Education

A telephone survey was conducted to try to locate all students who had earned an AA, AS, or AGS degree at ACC between Spring 1991 and Fall 1992. All 107 who could be located and who had subsequently attended a four-year college or university were surveyed. The response size was 55 (51%). The survey consisted of both open-ended and closed-ended questions (see Appendix J for a copy of the questionnaire and detailed summation). Ninety percent of the respondents indicated that they plan to pursue graduate degrees. All respondents said they unqualifiedly would recommend ACC to a friend, except for one who said it would depend on the friend's goals.

On the closed-ended questions, overall, students were "Satisfied" or "Very Satisfied" with their educational experience at ACC; specifically, their preparation for transfer to their subsequent college/university, ability to read critically, ability to speak logically, ability to plan and write well organized compositions, ability to think clearly about a variety of human issues, ability to apply quantitative skills, and ability to use basic resources of a library to conduct research. Because the samples sizes of AS (9) and AGS (7) were so small, no analyses were conducted to try to identify statistically significant differences in terms of degrees received.

Responses to open-ended questions identified the quality of instructors and small class size as the two most helpful aspects of the students' educational experiences. Responses indicated that the counseling process (academic advising) had significant strengths as well as weaknesses. Twenty-eight percent of the suggestions for improvement related directly or indirectly to the transfer process. (See Appendix J for a complete listing and frequency of responses.)

Recommendations. The Transfer Education Accountability Committee made the following recommendations (see related recommendations in part 1):

1) Reconsider the 1991-92 Report recommendation to assess English, Speech, and Math on a three-year rotational basis.
2) Complete the curriculum review process for ENG 121 and ENG 122.
3) Provide staff development activities for facilitating critical thinking in the curriculum.
4) Review the definition for "General Education/Transfer Education" for possible change for the 1993-94 Accountability Report.
5) See also the Transfer Education Committee for Accountability recommendation on the Faculty Advising program in the last paragraph of 4f (p. 7).

Vocational Education (See 4b, above, for survey of graduating students.)

e. After-Graduation Performance

As planned, no survey was conducted; the next survey is scheduled for 1993-94.

f. OTHER

Student Services

In response to recommendation 1 in the 1991-92 report, a Student Activities evaluative survey was administered to a representative sample of ACC students during the fall semester. Results were used to target activities to specific student groups. Increased participation in certain activities was noted throughout the academic year.

In response to recommendation 2 in the 1991-92 report, Student Services' Directors will continue to analyze usage data as a means of determining new marketing strategies for all areas. Information about Student Services will be disseminated through instructors, the student newspaper, and campus posting. Marketing of Student Services intensified during the year and resulted in increased awareness and usage of services by ACC students.

A survey of graduating students indicated that all areas except Student Government fell within the minimum criterion range for acceptable performance (see Appendix K). Compared to 1991-92, slight increases in satisfaction levels were noted in all other areas.

Recommendation.

1) The Student Government should develop strategies to enhance its visibility and credibility with the student body.
2) Consider fee and service reductions in view of legislative mandates impacting ACC's total budget.

Adult Education

A random survey of 767 students indicated a high degree of student satisfaction with the Adult Education program. Overall, 93.4% of the students were "Very Satisfied" or "Satisfied" with the program (see Appendix L). This reflects a slight decline from the previous year (95.2%).

Recommendations. The Adult Education Division recommends that the College:

1) Continue to offer a wide variety of Adult Education classes to meet the needs and interests of students as well as to encourage life-long learning of people in its service area.
2) Study the organizational structure, staffing patterns, and communication systems of the Adult Education program to attempt to improve their effectiveness and efficiency.
3) In response to enrollments in 1992-93, expand the Douglas County Adult Education program, in terms of both the number and the locations of offerings, beginning fall 1993.

Business and Industry Services

BIS served 630 employees of 23 companies; many of the companies served during the 1991-92 year returned for additional training and/or special services in 1992-93. Satisfaction surveys of students in regular classes and non-credit classes revealed that customized-training courses met the needs of students who completed the surveys; 97% of the students who completed the evaluation forms either "Strongly Agree" or "Agree" that they were satisfied with the training they received (see Appendix M). This reflects an increase from 92% in 1991-92. Twenty-six percent of the students were not surveyed because they were absent when the surveys were administered or because of an administrative oversight in delivering the forms in a timely way or failure of the instructor to administer the surveys. (Evaluation of services provided through the Workplace Education project is conducted externally and is, therefore, not reported here.)

To monitor employer satisfaction, the program maintains constant oral communications with a representative of each company whose employees are involved in customized-training courses. A new follow-up evaluation form (to be completed by managers) was created (see "Follow-Up Evaluation..." in Appendix M), but because the form is used only for customized training programs the data are not reported here.

Recommendations. The Office of Business and Industry recommends that the College:

1) Continue to work closely with company representatives and instructors to insure that intended learning outcomes are achieved.
2) Review individual participant needs/wants at the beginning of each course in order to insure the participants are also given the opportunity to achieve their personal goals.
3) Increase efforts to collect feedback from all participants.

4) Create a computer database of continuous evaluation information for more complete and accurate assessment.

Graduating Students' Satisfaction

Surveys indicated that graduating students were generally satisfied with the quality of their education at ACC (see Appendix N).

Multicultural Awareness

The College's annual Quality Days, November 1992, included a session to increase multicultural awareness. The session was a replication of part of the multicultural training offered at the College in 1991-92. It was well attended by administrators, faculty, and staff.

A faculty member proposed the College's first international film series. The 10-film academic-year series was sponsored by the Student Activities program, with support from the Humanities and Social Sciences Division and from the Spring International School based at the College. Twenty to 50 people attended each film.

Recommendation. Offer another international film series in 1993-94 and increase publicity.

The Accountability Process

The College increased its commitment to the accountability process in several new ways. First, as the accountability process became more integrated into all levels of the College, ACC recognized the need to create an assistant to the Vice-President to coordinate the various efforts of committees, divisions, departments, and individuals; the position of assistant coordinator of accountability was created to fill this need. Second, in response to student-reported problems in the advising/counseling area, the College is implementing (beginning summer 1993) a new Faculty Advising program. Third, the College funded all faculty and administrators who were interested in and available to attend the CCHE Accountability Conference. Fourth, the College funded seven faculty and staff members to attend a two-day Workshop on Critical Thinking Instructional Strategies. Fifth, because the first Phi Theta Kappa national faculty training session on teaching leadership skills (summer 1992) appeared to have such positive results (see "Other," p. 3) in a team-taught course, the College funded two more people to attend the summer 1993 session. The above individuals will be sharing their insights with other members of the College community. Sixth, the College is supporting ongoing Accountability efforts during the summer by compensating faculty for committee work during the summer, when they are not under contract.

The College has also increased the representation on its Accountability committees. Because so many business students transfer to four-year programs, the Dean of the Business Division was added to the Transfer Education Accountability Committee. To increase the responsiveness of the College to data collected during the Accountability process and to avoid duplication of efforts and costs, the Accountability process is gradually being aligned with the Strategic Planning Process.

Finally, Accountability committees are now viewing assessment as an ongoing process, occurring at both formal and informal levels. On a more formal level, at the recommendation of the Transfer Education Committee for Accountability, the College included faculty from the transfer program in the new Faculty Advising program when responses on the Transfer Survey (Appendix J) indicated significant problems in advising for transfer students (the 1991-92 surveys had already indicated significant advising problems in the Vocational programs). On informal levels most faculty engage in assessment of their effectiveness not only at the end of a term, but also on an ongoing basis, adjusting their strategies as necessary (see for example, the discussion of journal writing, p. 1; "Vocational Education," p. 2; and "Other," p. 3).

Additional Details. Additional details relating to the information in this report are available by contacting the Vice-president of Instruction.

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APPENDIX A: Math

The 20-question nationally normed MAA Calculus Readiness Test was administered to students in College Algebra fall and spring semesters. Median scores of 11 and 12 compared favorably with last year's at ACC (12) and with median scores reported nationally (9-12). (See Figure 1.)

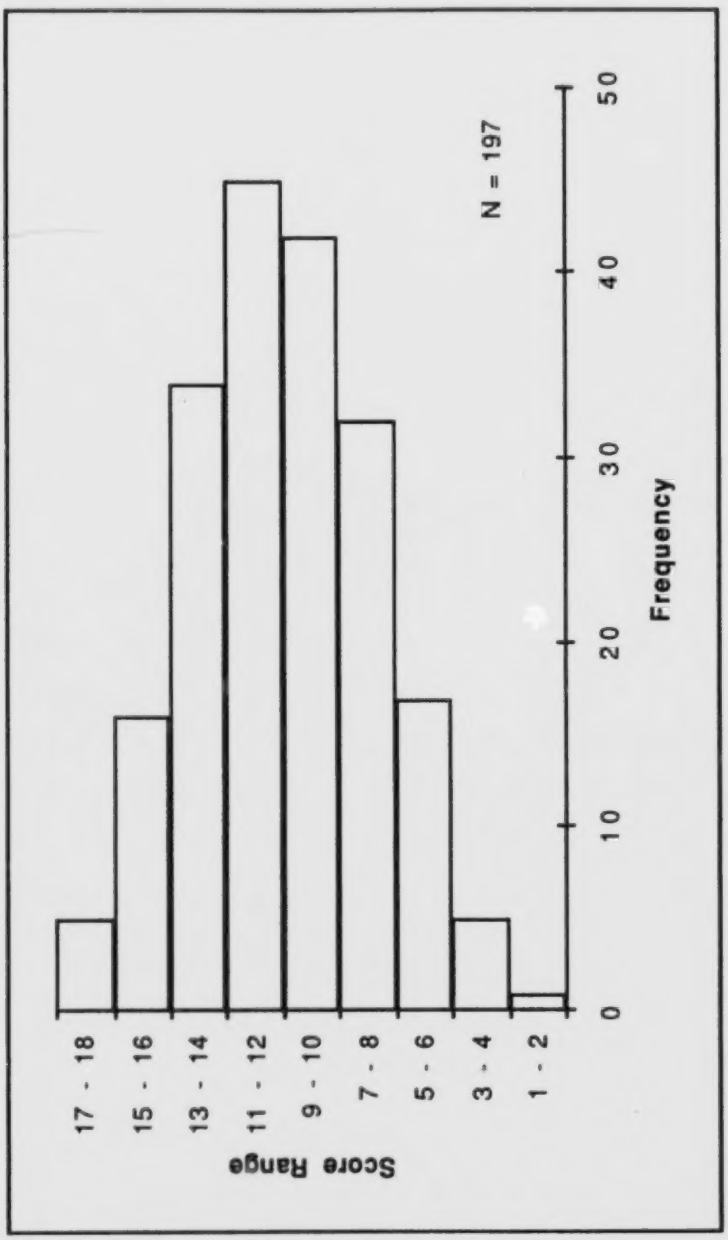

Figure 1. Distribution of MAA Calculus Readiness Scores for ACC students: Spring 1993

APPENDIX B: English 121 Instructor's Guidelines

Arapahoe Community College

ENGLISH 121 INSTRUCTOR'S GUIDELINES

WRITING REQUIREMENTS

Students should be able to write essays that meet

- the length required by the assignment
- MLA manuscript style as presented in the handbook.

Students should be able to write essays that have

- **titles** that give insight into the thesis
- a **subject** appropriate to the assignment
- a **thesis statement** that is
  - appropriate to the assignment
  - unified, restricted, and precise
- an **outline** with at least a 2-level MLA format
  - margins and indentations
  - notation system
  - parallel construction
  - logical divisions and subdivisions
- an effective **organization** that includes
  - an **introduction** that
    - catches the reader's attention
    - is appropriate to the purpose and audience
  - a **body** in which
    - the thesis is developed in logical order, with
      - adequate details
      - relevant details
      - specific details
    - transitions relate
      - the major sections of the essay to the thesis
      - one paragraph to another
  - an **ending/conclusion** that
    - provides effective closure to the essay
    - is appropriate to the purpose and audience
    - leaves the reader with a clear sense of the thesis and the purpose of the essay
- **paragraphs** that have
  - a clearly stated or implied topic sentence which is clearly related to the thesis
  - unity
  - coherence
  - logical order
  - adequate detail
- **sentences** that
  - are generally clear
  - use subordination and coordination effectively
  - use appropriate voice
  - are free of fragments and run-ons (fused clauses and comma splices)
- **diction** that is
  - appropriate to the purpose and audience
  - correct
  - precise.

Research Requirements

Students should be able to write a formal essay effectively incorporating research

- in the MLA format, which uses
  - a variety of sources
  - parenthetical references
  - Works Cited list
- in various ways, including but not limited to,
  - running-text quotations
  - block-format quotations
  - paraphrases
  - summaries

Reading Requirements

When given an essay to read, students should be able to

- state the thesis
- identify the author's supportive details
- read actively (see critical thinking)
- respond critically (see critical thinking).

Critical Thinking

Students should also be able to

- analyze and evaluate sources of information
- analyze and evaluate strengths and weaknesses of an argument
- analyze and evaluate form, style, content, and context
- relate ideas discussed in class to other contexts

Learning Environment

Students should be encouraged to

- view reading and writing as a process of discovery
- read and write with a clear understanding of purpose and types (modes) of writing
- increase their vocabulary, paying special attention to lexical and figurative meanings
- develop a sense of responsibility in the learning process
- monitor their own comprehension and ask questions as needed
- develop a sense of being a part of a community of learners.

APPENDIX C: Journal Writing

Student Survey of Helpfulness of Journal-Writing Tutorials
Literature 115 L3: Summer 1993

Students in Literature 115 L3 were required to complete two HyperCard® tutorials on journal writing during the first week of class. They completed the first tutorial during class time, working in small groups; they completed the second tutorial outside class time. On the last night of class, the 12 students who completed the course were asked to respond anonymously to the following statement:

I found the tutorials at the beginning of the term helpful in writing journals.

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
0	0	0	4	8

N = 12
Average = 4.7

This was the second term that the instructor required her students to complete the tutorials. The results of the above survey are consistent with informal student evaluations during the previous term.

Self-Ratings of Journal Helpfulness: Frequencies, Percentages & Means*

In a formal research study during the spring semester 1992,[1] an instructor studied her students' use of journal writing in two sections of an Introduction to Literature class (LIT 115). One part of the study included students' perceptions of the helpfulness of journal writing after their first and last (seventh) journals. Students were asked to respond to the following question:

How helpful did you find writing journals? Please circle only one.

Not at all		Somewhat		Very
1	2	3	4	5

	Group	1 Not at all	2	3 Some-what	4	5 Very Helpful	No Rating	Total	Mean
After First Journal	1 / 2	0 / 0	1 / 1	3 / 1	4 / 4	4 / 2	0 / 1	12 / 8	3.916 / 3.875
%		0%	10%	20%	40%	30%			
After Last Journal	1 / 2	1 / 0	0 / 0	2 / 2	5 / 4	4 / 2	0 / 0	12 / 8	3.916 / 4.0
%		5%	0%	20%	45%	30%			

* Includes only students who answered both surveys.
(Including the 5 students who were omitted yields grand means of 3.87 after the first journal and 3.90 after the last journal.)
(Note: The instructor did not see the "End-of-Journal-Writing Survey" until after she had submitted grades for the course; students knew they were sealed in an envelope and held in the supervisor's office.)

Additional analysis indicated that students' evaluations of journal writing were not significantly correlated with their grades in the course at the time of the survey.

[1]The data were collected for a dissertation and were analyzed during the summer and fall 1992.

What Students Identified as Most Helpful About Journal Writing in an Introduction to Literature Course

In a formal research study during the spring semester 1992,[2] an instructor studied her students' use of journal writing in two sections of an Introduction to Literature class (LIT 115). After their first and last journals (surveys 1 and 2, respectively), students were asked, "What did you find most helpful about writing your journal?" Following is a summary of their responses.

Comment (Most Helpful Aspect of Journal Writing)	Survey #	# of Students*
• facilitated understanding	1 2	4 5
• stimulated / facilitated my thinking (including articulating or clarifying thoughts, formulating opinions, examining all of a story's points)	1 2	11 6
• forced me to think about what I read (instead of reading passively or just for pleasure); made me look at a work in more than one light	1 2	3 6
• taught me to concentrate / focus my thoughts	other**	2
• forced me to read more carefully (including looking for details)	2	1
• stimulated questioning	1	3
• helped me answer my own questions	1 2	3 2
• helped me organize my thoughts	1 2 other**	1 3 1
• helped me collect my thoughts	1 2	1 1
• having the opportunity to ask questions and have them answered	2	2
• having the opportunity to ask questions in private, without fear of student ridicule	2	1
• following the catechism for analyzing stories	2	1
• helped prepare for class discussion	2	3
• helped me remember things I wanted to bring up in class	2	1
• helped me remember more details	2	1
• helped me prepare for quizzes	1 2	1 2
• having the journal to review and elaborate on in future individual study	2	1
• knowing I could be honest about my opinions--feelings	2	1
• [no response]	2	2

* Survey 1, N = 25 Survey 2, N = 20
Some students wrote more than one comment.

** This comment was included in an answer to another question in the survey.

[2]The data were collected for a dissertation and were analyzed during the summer and fall 1992.

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APPENDIX D: Communication Across the Curriculum

TO: Department Chairs

FROM: Don Yeager

DATE: March 4, 1993

RE: Summary of Accountability Committee Meetings of Department Chairs, March 3 and 4

At our meetings yesterday and today, we agreed that although research shows that our students and their employers are generally satisfied with the quality of our certificate and degree programs, our graduates are not as proficient as we would like them to be in communicating.

We identified the following primary proficiencies:
- Reading,
- Listening,
- Critical thinking,
- Writing,
- Speaking,
- Interpersonal communication,
- Ethics, and
- Cross-cultural communication.

We agreed that the responsibility for improving these proficiencies does not rest with a few teachers or a few courses (e.g., English 121 and Speech 115) but must extend to the whole faculty and to the students themselves.

Thus we also discussed the importance of:
- Developing the student's sense of his/her own responsibilities in the learning process,
- Developing the student's metacognitive skills (including those essential to being a life-long learner),
- Developing the student's sense of being a part of a community of learners, and
- Establishing rapport between the student and his/her teachers (this is, of course, related to the previous goal).

Planning Priority

To address these needs, we agreed that the college should establish as one of its 1993-94 planning priorities a "Communication Across the Curriculum" program. This priority was suggested to the Chair of the Planning Committee, who was present on March 3.

Tasks for Follow-Up Meetings, April 7 and 8

As a first step in the process, department chairs agreed to meet with their respective faculties to
- Identify desired communications proficiencies in their certificate and degree programs.
- Review current general education requirements in certificate and degree programs. Are these meeting the needs?
- Identify strengths by inventorying course objectives and/or strategies individual faculty currently use to address the desired proficiencies.
- Suggest ways to address current weaknesses.
  For example,
  - What type of help, if any, would faculty like in developing new instructional strategies?

- Would faculty like to meet with members of the Speech and English Departments to discuss ways that general education courses could "interface" with program goals and strategies?
- Would faculty like the opportunity to attend workshops or opportunities to visit classes of faculty who use particular strategies.
- Are faculty interested in particular instructional strategies such as how dyads or small-group activities can facilitate learning and communication skills?
- Would faculty like to know about types of short critical writing activities or ways journal-writing can be used in courses do develop communication skills, rapport, and metacognitive skills?
- Should program requirements be changed? Should, perhaps, interpersonal communications be substituted for public speaking in some programs? Should it be added to some programs?
- Should students be required to demonstrate particular communications competencies before they are formally admitted to vocational programs?

TO: Department Chairs and Members of the Transfer and Vocational Educational Accountability Committees

FROM: Don Yeager and Peggy Cole

DATE: April 12, 1993

RE: Summary of Meetings, April 7 and 8, 1993

In response to 1991-92 employer surveys, Transfer and Vocational Educational Accountability committees and the department/program chairs have been addressing the question of whether our graduates have adequate communication skills. While employers were generally very pleased with our graduates' skill levels, we recognized that communications skills are a weakness in the American work force. At our March meetings, we, therefore, endorsed a Communications Across the Curriculum program. Department/program chairs subsequently met with their faculty to identify communication-skills outcomes (those desired versus those currently required) and any help faculty might wish in achieving their educational goals for their courses and programs.

Our next step will be to ask faculty to identify their areas of expertise with instructional strategies that promote communications skills. Then we will ask faculty to identify strategies and formats (e.g., Quality Days, workshops, formal courses) that they are interested in.

Thanks to those of you who attended the meetings and/or submitted written inventories, suggestions, and requests. Some people have already begun to implement suggestions.

The consensus of the April 7-8 meetings was that:

1. Faculty participation in developing or enhancing expertise in teaching communications strategies should be voluntary.
2. The college should identify expertise of contractual as well as adjunct faculty in using / teaching communications strategies (including critical thinking strategies).
3. The college should encourage full-time and adjunct faculty to share their expertise (the emphasis is on acknowledging excellence that already exists on campus before hiring outside consultants for training).
4. The college should compensate faculty who lead workshops, etc.
5. The college should try to find money to pay adjunct faculty if they attend training sessions.

INSTRUCTIONAL STRATEGIES

Following is a list of ideas that grew out of the meetings. Please note suggestions, requests for assistance, and offers of assistance that relate to your area. Some items (e.g., 6.a. in the first section) refer to specific programs, but suggestions apply to any program area that has similar concerns.

When / How Opportunities to Learn Might Occur

1. A summer class in instructional strategies free to ACC full-time and part-time faculty

2. Workshops during Quality Days

3. Workshops or other activities during the year; e.g., Faculty Fridays (afternoon sessions), at which faculty can share their expertise, provide training, etc.

4. Sitting in on classes where a particular strategy is being used

5. Mentoring

6. Team / Guest Teaching
   a. A member of English faculty could teach units on grammar, mechanics, etc. in, for example, a course on legal writing. This could achieve several purposes:
      1) The paralegal instructor could develop more expertise in grammar and mechanics so that he could ultimately teach the material himself, and he would not have to find time in his busy schedule to attend training sessions.
      2) Having an English teacher team the material would validate the importance of the required English courses in that vocational program.

   b. A member of the Speech faculty might teach units on public speaking, interpersonal communications, or nonverbal language.

   c. A member of the English Department might teach a unit on journal writing (several types or one type: purpose and procedure).

   d. Faculty could lecture on cross-cultural communication or provide other suggestions on how to incorporate issues relating to cross-cultural communication in courses (e.g., Accounting).

7. Electronic field trips, or video tapes
   a. These could be used in class or at public display video units around campus to illustrate various communication problems in work settings. They would cultivate students' awareness of the real-world need to master communications skills. They might be mini-cases (similar to the Zinger-Miller tapes).

   b. Faculty could view faculty at ACC or other locations using alternative instructional strategies.

8. Other
   a. Speech faculty are asked to provide assistance in incorporating interpersonal and organizational communication strategies and public speaking principles within the Early Childhood Education program.

   b. English faculty could meet with representatives from individual program areas to identify specific problems and develop a plan to resolve them. This might be done during the summer, with faculty who participate being compensated for their work.

   c. English faculty could provide assistance with writing activities in Accounting classes.

   d. Speech faculty could provide assistance in teaching interpersonal communication skills in Accounting classes.

   e. Faculty could attend workshops offered at other community colleges in the area.

Problems and Some of the Solution Strategies Identified

Skills are not systematically required.

1. Most of the desired communications skills are required in at least some of the courses in each program area or discipline, but because most programs and disciplines do not systematically require them, students may complete their degrees without having had to write, make oral presentations, or engage in interpersonal communications in courses other than English 121, 122 and Speech 115, 125. A related concern is that courses may provide the opportunity for students to use the skills but not require them (e.g., a few students do most of the talking during class discussion while others listen; thus they get little practice in applying communication skills).

   a. Require more of the skills in more courses, particularly in 200-level courses.

   b. Require more on-the-job experiences.

   c. Require students in degree programs to take at least two courses besides composition and speech which are writing/speaking intensive. (Relevant courses would be flagged.)

2. Because most programs and disciplines do not systematically require communications skills, students may delay taking their English and Speech requirements until their last term. Thus, instructors of other courses cannot systematically build on those skills.

   a. Require students to take their English and Speech requirements before being formally admitted to programs. (Perhaps students could take up to 9 credits without having been formally admitted to a vocational/occupational program.)

   b. Inform students of the competencies expected in courses, grade accordingly, and allow students to recognize when they need to take their English and Speech requirements.

   c. Require more on-the-job experiences which integrate skills.

   d. Expand the academic assessment program so that students entry skills can be more accurately assessed and students can be advised accordingly.

   e. Code classes according to the level of writing and speaking skills required. This would be an academic advisement tool.

A Problem of Standards

3. Faculty outside the English Department who require writing assignments are not sure of their rights and responsibilities in requiring literacy. Several full-time faculty raised these concerns. One said that over the years she has vacillated between requiring students to master several types of writing assignments and allowing students to do only the type the student is most comfortable with. Furthermore, one adjunct faculty member in an occupational program told a member of the committee that six students who are in the last semester of their program have inadequate writing skills; he said that three are basically illiterate. But he is not sure that he has the right to fail them for writing illiterately in essay examinations and other writing assignments.

   Several ethical issues arise. First, if this instructor fails these students, they will not graduate. Second, the faculty member may become so frustrated trying to deal with student illiteracy, he/she may stop requiring writing assignments and only give multiple-choice tests. Third, if no writing is required, the student may not develop writing competencies that his/her profession and clients expect or require. Fourth, an adjunct faculty member

may feel pressured to lower standards if students complain, because he/she fears losing his/her job....

a. Faculty might establish minimal standards for evaluating writing in their program areas and to communicate these "program-wide" standards to students.

b. Chairs need to articulate these standards to adjunct faculty and communicate ways they can address problems when they arise (e.g., tell students they need to take the required composition courses, encourage students to seek tutoring in the Learning Strategies Lab or from Carl Perkins tutors, etc.). If there are no program-wide standards, chairs need to communicate the rights of individual faculty to establish criteria and evaluate students' performances accordingly.

Transfer of skills from composition courses to other courses

4. Students who have taken English 121 (and perhaps 131) often cannot (or for some reason do not) apply relevant research/writing skills in other courses.
   a. Verify that the students who have difficulties have indeed completed English 121 with a grade of C or better.

   b. When teachers encounter former composition students with writing problems, they should share the details with the chair of the English Department (student name, types of problems) so the English Department can help resolve the problems. Does English 121 require the competencies in question? At what level of mastery? Was the student proficient when he/she completed English 121? Did too much time elapse before the student was required to use the skills in other courses? Did the student have difficulty transferring the skills from one context to another?

   c. Learning Strategies Lab and other instructional support centers tutor students who need help in writing papers. These services need to be publicized to instructors (particularly adjunct faculty) and students.

   d. English teachers might give assignments that require or encourage students to write about their career fields. For example, students might write
      1) reflective essays on what they learned by interviewing a client, a customer, a patient, a patient's family, a police suspect (particularly if they are from different ethnic backgrounds); or what they learned from the worst mistake they ever made at work;
      2) narrative or reflective essays on a personal experience with prejudice, a job interview;
      3) argumentative essays on career-related issues such as the need to upgrade a specific piece of equipment, the need to train employees to use nonsexist language;
      4) expository essays on what to do (not do) in a job interview, how to perform a critical task, the costs of employee theft (e.g., what if each employee ate or gave away one serving of French fries per day, or took home one ball point pen a day).

   e. Instructors in occupational/vocational courses might give mini research assignments (ones which do not require writing formal papers) to help students transfer research skills from composition classes. For example, what percentage of motorists in the US were uninsured in 1992? What percentage of children were born to unwed mothers in the US in 1992? Identify the total percentage and percentages by ethnic group. Students would have to write the answer, identify the source and be able to explain how they located it. (Such assignments could be given first to students to complete in small groups so the students could help each other, and later to students to complete individually.

Different questions relating to the same issue might be assigned, with class discussion providing an opportunity for synthesis and evaluation.)

5. Students who have satisfied entrance requirements (i.e., appropriate ASSET scores and a writing sample, or completion of English 095) to enter the Police Academy sometimes drop out of the program when they are required to do research papers or make oral presentations.

   a. Raise the entrance standards; for example, in programs that currently require English 095 (or equivalent placement score), raise the requirement to English 121.

   b. Require students to complete English 121 and the appropriate speech course before they are formally admitted to the program.

   c. Provide tutoring in the Learning Strategies Lab for using CARL and the other data bases in the library and for writing research papers. (This will require purchase and installation of equipment and training of lab staff by the library staff.) Some of the English faculty have already expressed interest in working in the lab in lieu of teaching one course. Instruct the staff in the Learning Strategies Lab about the availability of the Library video tape (this can be accessed on the video carrels in the Lab).

   d. Offer a two-week brush-up course in English just before the fall semester begins. (This could resolve many students' problems, or persuade students that they need to take additional English courses. It could also introduce students to instructional support services that will be available to them if they need tutoring when they are assigned to write papers.)

Training and access to electronic communications networks.

6. Most faculty do not have access to and/or do not know how to use electronic communications systems to communicate with other professionals or with students.

   a. Equip faculty computers to access the appropriate communications networks that the college now has available and give faculty computer accounts.

   b. Train faculty who are interested in learning how to use e-mail and bulletin boards.

   c. Provide computer accounts for students so that faculty and students can communicate with e-mail and bulletin boards.

APPENDIX E: Developmental Studies

Definitions and Explanations of Calculations in Developmental Studies Appendix

The following definitions and calculations are derived from guidelines for analyzing Developmental Studies for the purposes of accountability, from the Director of Research and Planning for the Colorado Community College and Occupational Education System. They relate to tables 1, 2, and 3 in this appendix (E).

Student Tracking Groups

Developmental - students who successfully completed developmental studies course work and subsequently enrolled in college level disciplines.

Waiver - students who were assessed as needing developmental studies course work but who signed a waiver allowing them to take college level courses.

Tested - students who were not exempted but who were assessed and qualified to perform college level course work.

Exempt- students who were exempted from assessment testing based on pre-established criteria (i.e., acceptable ACT/SAT scores, completed prior degree).

No information - students who failed to undergo assessment testing and as a result no assessment scores were on file.

Explanation of Calculations

Percent successfully completing - the number of students completing the college level course with a final grade of A, B, C, or P divided by the total number of students who took the course (A, B, C, P, plus D, F, W, U) times 100.

Average GPA - computed on all students who received a grade (A-F) in the course.

Total - total number of students enrolled in college level course work for the particular discipline being reported.

Table 1. Developmental Studies Tracking Analysis: Reading

Students were **tracked from** REA 095 (Critical Reading) taken during or after the Fall 1990 semester **into** PSY 101 (General Psychology I) taken during the Spring 1993 semester.

Student Group[1]	N	% Successfully Completing[2]	Average GPA[2]
Developmental	37	62.2*	2.70**
Waiver	120	60.0*	1.97**
Tested	79	77.3	3.05
Exempt	51	75.0	2.41
No Information	94		
Total (C)	381		

* There was no significant difference ($p > .05$) between the Developmental and Waiver groups.

** There was a statistically significant difference ($p < .05$) between the Developmental and Waiver groups.

Results

Students who successfully completed Reading 095 (Critical Reading) subsequently performed significantly better in Psychology 101 than students who waived assessment advice to take REA 095. There was no significant difference in the completion rates of those two groups; however, both groups had lower completion rates than students who matriculated at ACC with college-level reading skills.

[1]For definition of tracking groups, see page 1 of this appendix (E).

[2]For explanation of calculations, see page 1 of this appendix (E).

Table 2. Developmental Studies Tracking Analysis: English

Students were **tracked from** ENG 095 (Basic Composition) taken during or after the Fall 1990 semester **into** ENG 121 (English Composition I) taken during the Spring 1993 semester.

Student Group[1]	N	% Successfully Completing[2]	Average GPA[2]
Developmental	86	68.6*	2.12**
Waiver	17	66.7*	2.22**
Tested	247	77.8	2.67
Exempt	52	70.6	2.92
No Information	91		
Total (C)	493		

* There was no signficant difference ($p > .05$) between the Developmental and Waiver groups.

** There was no signficant difference ($p > .05$) between the Developmental and Waiver groups.

Results

Students who successfully completed ENG 095 (Basic Composition) subsequently performed at about the same level in ENG 121 (English Composition I) as students who waived assessment advice. Both groups had similar completion rates, which were lower than the rate for students who tested into ENG 121. However, because so few students who waived advice took English during the assessment terms, the results are difficult to interpret.

[1]For definition of tracking groups, see page 1 of this appendix (E).

[2]For explanation of calculations, see page 1 of this appendix (E).

Table 3. Developmental Studies Tracking Analysis: Mathematics

Students were **tracked from** MAT 060 (Pre-Algebra) taken during or after the Fall 1990 semester **into** MAT 121 (College Algebra) taken during the Spring 1993 semester.

Student Group[1]	N	% Successfully Completing[2]	Average GPA[2]
Developmental	16	62.5*	2.31**
Waiver	15	50.0*	2.23**
Tested	76	57.9	2.61
Exempt	81	72.4	2.38
No Information	106		
Total (C)	294		

* There was a statistically significant difference ($p < .05$) between the Developmental and Waiver groups.

** There was no significant difference ($p > .05$) between the developmental and Waiver groups.

Results

Students who successfully completed MAT 060 (Pre-Algebra) subsequently performed at about the same level in MAT 121 (College Algebra) as students who waived assessment advice or who were exempted by their ACT/SAT scores; all three groups performed lower than the group which tested into MAT 121 on Asset. The developmental students experienced significantly higher completion rates than students who waived assessment advice or who were exempted. However, the results are very difficult to interpret for several reasons: significantly different group sizes, ability of students to enroll in courses by waiving or without the benefit of advice, and the fact that MAT 060 is not a gateway course for MAT 121 (MAT 115 is the prerequisite).

[1]For definition of tracking groups, see page 1 of this appendix (E).

[2]For explanation of calculations, see page 1 of this appendix (E).

General Comprehensive Education

The G.E.D. program is designed to help students gain knowledge and skills in writing, social science, natural science, reading, and mathematics commensurate with at least minimal high school graduation standards. Students may then be ready for college-level content course work, as most high school students are, or they may need additional work in Developmental Studies courses, leading to gateway courses and then to college-level courses. However, the G.E.D. student differs from most students at ACC. For example, ages vary from 16 to 89. And ACC offers free G.E.D. pretests to members of the community. Thus it is difficult to interpret G.E.D. results in terms of completion, retention, or achievement in college-level courses; students in G.E.D. will no longer be tracked.

Analysis of G.E.D. students who were pre tested revealed that 43% of those enrolled in G.E.D. classes passed the official G.E.D.; 25% of those pre tested passed the official G.E.D. test.

A continuing problem with G.E.D. is failure to complete the program. Thus faculty will establish time limits for students to complete units and consider other strategies in order to help students set realistic goals and sub-goals.

English as a Second Language (ESL)
Tracking System

Table 4. Successful Completion of ESL 092

Academic Year	# Students	% Successfully Completing
1990-91	40	88%
1991-92	27	70%
1992-93	56	77%
3-year Average	41	78%

Table 5. Success of ESL 092 Students in Subsequent ENG 121 or ENG 131

Tracked From	Tracked To	# Students in ENG 121/ENG 131	GPA in ENG 121/ENG 131
Fall 1991	Spring 1992	4	2.04
Fall 1992	Spring 1993	17	2.78*

* 82% completed the course with a grade of C or better

APPENDIX F: Leadership Development Class Spring 1993

The Leadership Development class was an experimental course team-taught by an instructor from the Humanities and Social Sciences Division and an instructor from the Business Division. The College had funded their participation in a faculty workshop on teaching leadership skills, sponsored by Phi Theta Kappa[3] in the summer of 1992. The class included material from the Great Books to extend understanding.

Some students were recruited by each instructor; others enrolled because the description of the course in the schedule caught their attention. Students generally rated the course positively (see Table 1.)

Table 1. Summary of Responses to Categorical Questions on the Student Evaluation Form

Question	Yes	No	Uncertain
1. Now that you have completed this leadership development course, has your definition of leadership changed?	5	1	0
2. Did you consider the content of this leadership development course useful?	5	1	0
3. Did this leadership development course help you to recognize different leadership styles?	6	0	0
4. Did you find it effective to study leadership development by examples drawn from classics in the humanities?	3	1	2
5. As a result of taking this course, have you acquired leadership skills that you did not have before?	5	0	1
6. (See below.)			
7. Do you plan to assume leadership roles in the situations you cited above [open-ended question 6]?	6	0	0
8. Was it beneficial to you to have the leadership training on campus?	5	0	1

N = 6

In response to an open-ended question (question 6) about what they liked best about the course, all six students identified the hands-on activities (including role-playing and discussions). One specifically objected to having any lectures.

---

[3]Phi Theta Kappa is a national scholastic honorary society for community college students.

Appendix G: Minority Student Data

Student Ethnicity Enrollment Comparisons 1992-1993
Arapahoe Community College

Table 1. Enrollment Comparisons: Fall 1991 to Fall 1992

Ethnicity	Fall 1992 N	Fall 1992 %	Fall 1991 N	Fall 1991 %	Year-to-Year % Change
American Indian	105	1.4	89	1.0	+ 18.0
Asian	116	1.5	118	1.5	- 1.7
Black	94	1.2	107	1.4	- 12.2
Hispanic	435	5.7	409	5.2	+ 6.4
White	6,400	83.6	6,505	82.4	+ 0.5
International Students	174	2.3	148	1.9	+ 18.2
Unknown	327	4.3	423	5.4	- 22.7
Total	7,652	100	7,799	100	- 1.8

Table 2. Enrollment Comparisons: Spring 1992 to Spring 1993

Ethnicity	Spring 1993 N	Spring 1993 %	Spring 1992 N	Spring 1992 %	Year-to-Year Change
American Indian	92	1.2	100	1.3	- 8.7
Asian	131	1.7	99	1.4	+ 32.3
Black	91	1.2	96	1.3	- 5.2
Hispanic	424	5.7	410	5.4	+ 3.4
White	6,236	83.2	6,365	83.6	- 2.0
International Students	315	4.2	169	2.2	+ 86.4
Unknown	205	2.7	377	4.9	- 45.6
Total	7,494	100	7,616	100	- 1.6

NOTE: Student ethnicity figures are self-reported. Year-to-year changes in percentages may not reflect the actual diversity of students on campus.

Table 3. Enrollment, Graduation and Service Area Ethnicity Comparisons

Ethnicity	1992-1993 % Avg. Enrollment	1992-1993 % Graduates	1990 % Service Area
American Indian	1.3	.9	0.5
Asian	1.6	1.6	1.5
Black	1.2	.6	1.5
Hispanic	5.7	5.0	4.4
White	83.4	86.9	91.0
International Students	3.3	3.0	—
Unknown	3.5	2.0	1.1
Total	100	100	100

Source: CCHE SURDS Degree Granted Files

NOTE: Service area percentages calculated from 1990 Census Information.

APPENDIX H: Vocational Education

Table 1. Results of Licensure Exams: 1992-93

Exam	N Examined	N Passed	% Passed
Colorado Real Estate Commission Exam	17	13	76.4
Nursing	53	52	98
P.O.S.T. Law Enforcement Exam Fall 1992	82	80	97.6*
Spring 1993	66	66	100*
Physical Therapist	12	12**	100

* Grade of C or higher
** 17 students graduated from the program; only 12 took the Colorado exam (Some students plan to practice in other states.)

Arapahoe Community College
Student Satisfaction Survey

_____
Program/Major

Yes ___ No ___
Employed in Major
Field of Study?

We would appreciate your taking a few minutes to complete this survey. Your responses will help us evaluate our programs. Please return the completed survey before graduation to Frank Markley, Arapahoe Community College, P.O. Box 9002, Littleton, Colorado 80160-9002.

I. Instruction - Think about the instructors you have had at ACC, not just the ones whose classes you are in now. Please indicate your rate of agreement with the following statements about your ACC instructors . . .

	strongly agree	somewhat agree	agree	somewhat disagree	strongly disagree
A. Use a variety of teaching skills/instructional strategies which assist in the learning process.	O	O	O	O	O
B. Demonstrate a current knowledge of the subject matter being taught.	O	O	O	O	O
C. Accessible to students enrolled in the course.	O	O	O	O	O
D. Use a fair and equitable student evaluation/assessment system.	O	O	O	O	O
E. Organize materials to maximize class time.	O	O	O	O	O

Comments:

II. Curriculum

F. The objectives and requirements of the AAS degree and/or certificate programs are clearly explained in the catalog.	O	O	O	O	O
G. Courses are appropriately sequenced for student learning.	O	O	O	O	O
H. Prerequisites to courses are appropriately assigned.	O	O	O	O	O
I. The program offers a reasonable number of electives for students.	O	O	O	O	O
J. Career and occupational information is an integral part of the curriculum.	O	O	O	O	O
K. Course outlines (syllabi) clearly present the goals and content of the courses.	O	O	O	O	O
L. Course descriptions in the catalog properly reflect the content of the courses in the program.	O	O	O	O	O
M. There was adequate communication between the instructor, student and cooperative/internship employer concerning training objectives.	O	O	O	O	O

Comments:

	strongly agree	somewhat agree	agree	somewhat disagree	strongly disagree
III. Institutional Climate					
A. The division office staff exhibit a professional manner.	O	O	O	O	O
B. The division office staff establish positive rapport with the students.	O	O	O	O	O
C. The division office staff was open and receptive to assisting me in solving my problems.	O	O	O	O	O
D. The faculty exhibit a professional manner.	O	O	O	O	O
E. The faculty establish positive rapport with the students.	O	O	O	O	O
F. The faculty was open and receptive to assisting me in solving my problems.	O	O	O	O	O

Comments:

IV. Advising/Counseling					
A. Students have an appropriate opportunity to meet with a program advisor before entering the program.	O	O	O	O	O
B. Counselors are informed of career opportunities in the program area.	O	O	O	O	O

	excellent	above average	average	below average	unsatisfactory
C. Rate the advising and counseling services you received:	O	O	O	O	O
1. personal	O	O	O	O	O
2. course information	O	O	O	O	O
3. scheduling/planning	O	O	O	O	O
4. job/career	O	O	O	O	O
5. English and math placement testing	O	O	O	O	O

Comments:

	all of my classes	most of my classes	some of my classes	none of my classes
V. Facilities/Equipment				
A. Classrooms				
1. The temperature was comfortable and conducive to learning.	O	O	O	O
2. The lighting was adequate.	O	O	O	O
3. The seating was comfortable.	O	O	O	O
4. The seating was suitable for the instructional setting.	O	O	O	O

Comments:

B. Labs				
5. The temperature was comfortable and conducive to learning.	O	O	O	O
6. The labs were of adequate size.	O	O	O	O
7. The equipment is current with industry standards.	O	O	O	O
8. The open lab schedule is adequate for student use.	O	O	O	O
9. The seating was suitable for the instructional setting.	O	O	O	O
10. The seating was comfortable.	O	O	O	O

Comments:

VI. What did you find most helpful in your educational program at ACC?

VII. What did you find least helpful?

VIII. Suggestions for improvement?

Thank you for your assistance.

Student Satisfaction Survey

Table 2. Student Satisfaction Survey: Instructors/Instruction
All Vocational Programs Reported*

Categories	% Satisfied All Programs (N = 130)	% Satisfied Criminal Justice (N = 52)	% Satisfied Nursing** (N = 14)	% Satisfied E.M.T. (N = 26)
Variety of Strategies	93.8	94.2	92.9	88.5
Knowledge of Subject Matter	96.1	98.1	92.8	88.4
Accessible to Students	85.4	82.7	85.7	84.6
Fair Assessment	84.6	82.7	71.5	84.6
Organized Materials	80.8	71.2	92.8	76.9

* Other program areas are not listed because of the poor response rates.
Percent of satisfied responses reported include ratings of Agree, Somewhat Agree and Strongly Agree.

** Caution should be exercised in interpreting the data related to the Nursing program, due to the return rate of 14 out of 53 graduates (26%).

Table 3. Student Satisfaction Survey: Curriculum and Institutional Climate
All Vocational Programs Reported

Categories	% Satisfied All Programs (N =130)	% Satisfied Criminal Justice (N = 52)	% Satisfied Nursing (N = 14)	% Satisfied E.M.T. (N = 26)
Curriculum				
Objectives & requirements explained in catalog	93.8	92.3	92.9	92.4
Courses appropriately sequenced	86.9	75.0	92.9	92.3
Prerequisites appropriately assigned	93.0	90.2	92.9	96.2
Reasonable number of electives offered	83.7	84.0	78.6	96.0
Career information integral to curriculum	80.7	80.4	85.7	83.6
Syllabi clearly presents course goals and content	81.5	63.4	92.9	96.2
Catalog descriptions reflect course content	91.4	88.3	92.9	92.3
Adequate communication regarding training objectives (cooperative/internships)	81.5	76.9	85.7	84.7
Institutional Climate				
Division office exhibits professional manner	92.0	92.0	85.8	92.3
Division office establishes positive student rapport	85.2	88.2	71.4	88.0
Division office assisted with students' problems	84.0	82.3	77.0	92.3
Faculty exhibits professional manner	94.6	94.2	85.7	96.1
Faculty establishes student rapport	91.4	88.5	85.7	92.3
Faculty assisted with students' problems	88.6	86.3	84.7	92.0

Table 4. Student Satisfaction Survey: Areas of Concern*
All Vocational Programs Reported

Categories	% Responding Satisfactory (N = 130)
Lighting adequate	77.3
Lab seating suitable	75.5
Equipment — industry standards	73.4
Lab temperatures conducive to learning	69.5
Labs adequate size	69.0
Lab schedule adequate	66.7
Lab seating comfortable	62.7
Classroom temperature conducive to learning	58.6
Seating comfortable	58.6

* Response rate = 26

Please Print

STUDENT EXIT INTERVIEW

TERM:_____YEAR:_____

Name (Last First)	Age	Student ID Number	Program Area	AAS	Cert.

Street Address	City	State	Zip Code	Hm Phone	Bus Phone

EDUCATIONAL BACKGROUND (prior to ACC)

Technical School (name) _____ Program _____

College _____ Major _____ Deg. or Approx. Crs. _____

College _____ Major _____ Deg. or Approx. Crs. _____

ACC EDUCATION

Years Attended From:___ To:____ Number of Credits Transferred to ACC ___ Coop. Ed. at ACC ? ___ Yes ___No

Goals when started at ACC: Degree or Certificate ___ Skill Enhancement ___

Transfer ___ Exploring Subjects ___

Other (specify)_____

Did you work with a FACULTY advisor while at ACC? ___Yes ___ No

Did you work with a COUNSELOR while at ACC? ___Yes ___ No

OCCUPATIONAL INFORMATION

Seeking Employment _____ Occupational Program _____

Promised Employment _____ Occupational Program _____

Presently Employed _____ No. Years Employed _____

Company _____ Supervisor _____

Address _____ City and Zip _____

Previous Employment

Position _____ Company _____ No. Years _____

Position _____ Company _____ No. Years _____

May a representative from ACC contact your employer to request comments about the program you completed? Yes ___ No ___

Future Employment What is your career objective over the next five years?

Type of position sought _____

Plans to relocate _____

Future college plans _____

Other _____

RESPONSE TO ACC EDUCATION

Do you feel that your education at A.C.C. is helping you in your present position? ___Yes ___No ___ Not Presently Employed

Do you feel that your education at A.C.C. will help you in a future position? ___Yes ___No

Comments or recommendations for ACC _____

_____

_____

_____

_____

_____

_____

Faculty Signature _____ *Date* _____ *Student Signature* _____ *Date*

BEST COPY AVAILABLE

Exit Interviews

A total of 258 exit interviews/survey forms were completed by students graduating from vocational programs. Quantitative information was analyzed to develop a better understanding of these students. Following is a brief summation of the analysis.

Table 5. Summary of Exit Interview Responses

Average age of vocational students at graduation	29.3 yrs.
% with some previous college or technical education	80%
Average # of credits transferred into ACC	< 7 credits
Average # of years to earn degree at ACC	3.3 yrs.
% fully employed	60%
% who worked with a faculty advisor	50%
% who worked with an academic counselor	18%
What were your goals when you started ACC? • Earn degree or certificate • Transfer to a 4-year college • Enhance skills • Explore different subjects • Other	 85% 6% 5% 2% 2%
Do you feel that your education at ACC is helping you in your present position? • Yes • No • Not presently employed	 51% 15% 34%
Do you feel that your education at ACC will help you in a future position? • Yes • No	 98% 2%

APPENDIX I: Retention/Persistence and Transfer

Table 1. Completion/Persistence Rates Analysis
Based on the Student Right-to-Know Tracking System

Year	% Persister	% Transferred	% Degree/ Certificate	% Total
1986				
ACC	8.2	23.3	13.4	44.9
State	6.9	15.7	18.3	40.9
1987				
ACC	5.5	21.2	21.3	47.9
State	6.7	16.7	23.9	47.2
1988				
ACC	11.9	17.5	20.1	49.5
State	7.7	16.3	23.6	47.6
1989				
ACC	9.6	23.1	18.1	50.8
State	8.3	18.9	19.7	46.9

Source: CCHE Report, 3/25/93, from Cohort Tracking System Data

Note: Graduation rates are after 3 years
Persistence rate is enrollment in the 4th Fall.

Results

At the end of Academic Year 1991-92 the three-year completion and graduation rate at Arapahoe Community College was 41.2 percent for those students who entered as first-time, full-time, degree-seeking students in 1989. An additional 9.6 percent of these 1989 entering students were still enrolled at Arapahoe Community College in Fall 1992 for an overall completion, graduation, and persistence rate of 50.8 percent. The completion and graduation percent includes those who received a degree or certificate at Arapahoe Community College as well as some students who transferred to other Colorado public post-secondary institutions.

Thus ACC exceeded its goal: The total completion/persistence rate for first-time, full-time, degree-seeking students starting in the Fall term continued to exceed the state average completion/persistence rate. In addition, it was the highest it had been in the five years studied.

ACC Term-to-term Retention Rates: 1990-1993

The Office of Institutional Research is monitoring retention rates over a three-year period before the Accountability Task Force establishes formal goals for this area. Tables 2, 3, and 4 present retention/persistence rates from semester to semester for academic years 1990-1993, 1991-93, and 1992-93. (See related table in Appendix G: Minority Student Data.)

Results

Based on the entire student population, 59 percent of the students who were enrolled during the Fall 1991 semester returned during the Spring 1992 semester. This is an increase of two percent over the 1991-92 academic year. Because Arapahoe Community College provides a variety of services to a diverse population, many students who enrolled during the Fall semester may have met their education goals of career upgrade, personal interest, or skill building. Institutional analysis indicates that many students enroll in courses one semester and transfer to a four-year institution the next.

When full-time degree- and certificate-seeking students are analyzed based on Fall enrollments, 81 percent continued their studies into the Spring semester. This is an increase of four percent over the previous year. This group more adequately reflects the "traditional student" and provides a better indicator of retention/persistence and the success of retention programs such as Academic Alert and others at Arapahoe Community College.

Table 2. Semester-to-semester Retention/Persistence Rates
for All Students of Arapahoe Community College:
Academic Years 1990-1993

Item	% Retained Fall '90 - 'Sp 91	% Retained Fall '91 - Sp '92	% Retained Fall '92 - Sp '93
Gender			
Females	59	58	60
Males	54	55	57
Ethnicity			
Black	40	52	56
Hispanic	51	58	56
Native American	57	57	48
Asian American	64	51	53
White	60	58	59
Unknown	39	44	58
Student Employment			
Full-time	54	54	56
Part-time	65	64	61
Not Given	50	59	61
Enrollment			
< 7 credits	47	45	47
7 - 12 credits	70	66	69
> 12 credits	78	79	84
Majors			
Declared	65	64	58
Undeclared	50	51	59
Declared Degree			
AA	—	72	78
AAS	—	71	73
AGS	—	66	67
AS	—	84	79
Certificate	—	54	65
Undeclared	—	41	40
Age			
< 18	—	48	49
18 - 21	—	63	64
22 - 29	—	58	55
30 - 39	—	58	61
40 - 49	—	54	53
50 - 64	—	44	48
> 64	—	43	58
Total Retention	**57**	**57**	**59**

NOTE: Retention/persistence figures do not include students who graduated in the Fall semester and did not return to the institution, because they had completed their programs.

Table 3. Semester-to-semester Retention/Persistence Rates for Full-time Degree- or Certificate-seeking Students: Academic Years 1991-1993

Item	% Retained Fall '90 - Sp '91	% Retained Fall '91 - Sp '92	% Retained Fall '92 - Sp '93
Gender			
Females	*	83	85
Males	—	70	77
Ethnicity			
Black	—	57	68
Hispanic	—	77	78
Native American	—	74	76
Asian American	—	66	85
White	—	78	82
Unknown	—	76	83
Student Employment			
Full-time	—	74	78
Part-time	—	81	77
Not Given	—	77	85
Enrollment			
12 - 15 credits	—	84	82
> 15 credit	—	77	78
Majors			
Declared	—	77	81
Undeclared	—	76	82
Declared Degree			
AA	—	78	83
AAS	—	85	81
AGS	—	74	74
AS	—	87	82
Certificate	—	74	84
Undeclared	—	0	0
Age			
< 18	—	67	60
18 - 21	—	81	75
22 - 29	—	70	82
30 - 39	—	84	90
40 - 49	—	85	89
50 - 64	—	85	90
> 64	—	50	55
Total Retention	**—**	**77%**	**81%**

NOTE: Retention/persistence figures do not include students who graduated in the Fall semester and did not return to the institution, because they had completed their programs.

* Information on Full-time students was not analyzed during the 1990-91 academic year.

Table 4. Semester-to-semester Retention/Persistence Rates
for ACC Full-time Degree- or Certificate-seeking Students: 1992-93

Item	Total Fall '92	Total Spring '93	% Retained Fall '92 to Spring '93
Gender			
Females	796	676	85
Males	573	443	77
Ethnicity			
Black	26	23	88
Hispanic	78	61	78
Native American	21	16	76
Asian American	41	35	85
White	1,100	898	82
Unknown	103	86	83
Student Employment			
Full-time	375	294	78
Part-time	305	236	77
Not Given	689	589	85
Enrollment Status			
12 - 15 credits	1,163	959	82
> 15 credits	206	160	78
Majors			
Declared	872	709	81
Undeclared	497	410	82
Declared Degree			
AA	260	215	83
AAS	811	657	81
AGS	145	107	74
AS	87	71	82
Certificate	66	56	84
Undeclared	0	13	--
Age			
< 18	9	1	11
18 - 19	286	212	74
20 - 21	297	224	75
22 - 24	220	183	83
25 - 29	177	144	81
30 - 34	136	121	89
35 - 39	129	118	91
40 - 49	91	89	98
50 - 64	20	18	90
> 64	1	1	100
Total Retention	**1,369**	**1,119**	**81.7%**

NOTE: Retention/persistence figures do not include students who graduated after the Fall 1992 semester and did not return to the institution because students who graduated had completed their programs.

Table 5. Transfer Rates of ACC Recipients to Colorado Public Four-year Institutions: 1987-1992

Graduation Year	Arapahoe Community College		All Colorado Community Colleges	
	Total Grads	% Transferred	Total Grads	% Transferred
1987-1988				
AA/AS	100	42.0	958	48.8
All Grads	519	18.5	4,655	17.2
1988-1989				
AA/AS	100	53.0	1,005	51.8
All Grads	566	18.4	5,190	17.5
1989-1990				
AA/AS	91	53.9	960	50.0
All Grads	610	15.8	5,396	15.7
1990-1991				
AA/AS	118	50.0	1,134	50.2
All Grads	671	13.4	5,697	14.7
1991-1992				
AA/AS	161	40.3	1,262	43.3
All Grads	828	11.2	6,242	12.1
5-year Average				
AA/AS	114	47.8	1,064	48.8
All Grads	639	15.5	5,436	15.4

Source: CCCOES Division of Research and Planning from CCHE SURDS extract files.

Results

Based on a five-year average, ACC exceeded the overall rate of transfer but failed to meet its criterion of equaling or exceeding the state average transfer rate for AA/AS graduates. The latter may reflect a higher percentage of ACC students transferring to non-public state colleges and universities compared to the state average. (In addition, ACC's Honors Institute helps outstanding students transfer to prestigious institutions throughout the country. Other AA/AS graduates transfer on their own initiatives to other institutions which are not included in the target transfer schools.)

Figures from CCHE show very little difference concerning students who transfer within one year and students who transfer within the timeframe of the reporting period (three years).

Further analysis reveals additional insight. During the past five years both the number and percentage of ACC graduates who earned an AA/AS increased (a steady increase from 100 to 161; 61% total). The percentage increase exceeded the state average increase of 32%. Moreover, ACC's percentage of the total state graduates who earned an AA/AS increased from 10% to 13%; and ACC's percentage of *all* graduates increased from 11% to 13%.

More importantly, during the past five years ACC's portion of state graduates who actually transferred increased for AA/AS graduates from 8.97% to 11.9%, and for total graduates from 11.99% to 12.32% (see Table 5a).

The College will examine this issue/goal more closely during the 1993-94 academic year.

Table 5a. Percentage of Community College Graduates Transferring from Arapahoe Community College to Colorado Public Four-year Institutions: 1987-1992

Graduation Year	ACC Total Transferred	All Colorado Community Colleges Total Transferred	% from ACC
1987-1988			
AA/AS	42	468	8.97
All Grads	96	801	11.99
1988-1989			
AA/AS	53	521	10.17
All Grads	104	908	11.45
1989-1990			
AA/AS	49	480	10.21
All Grads	96	847	11.38
1990-1991			
AA/AS	59	569	10.36
All Grads	90	837	10.75
1991-1992			
AA/AS	65	546	11.90
All Grads	93	755	12.32
5-year Average			
AA/AS	53.6	516.8	10.37
All Grads	95.8	829.6	11.55

Table 6. Grade-point Averages (GPA) of ACC Transfer Students to Colorado Public Four-year Institutions: 1986-1992

Graduation Year	Transfer GPA Arapahoe CC	State Average
1986-1987		
AA/AS	3.3	3.0
All Students	3.1	3.0
1987-1988		
AA/AS	3.3	3.1
All Students	3.1	3.0
1988-1989		
AA/AS	3.2	3.0
All Students	3.2	3.0
1989-1990		
AA/AS	3.2	3.0
All Students	3.0	3.0
1990-1991		
AA/AS	3.3	3.0
All Students	3.2	2.9
1991-1992		
AA/AS	3.1	3.0
All Students	2.9	2.9

Source: CCCOES Division of Research and Planning from CCHE SURDS extract files.

Results

The average Arapahoe Community College transfer student maintains a solid "B" average after transferring to a four-year Colorado public institution. The average GPA of a transfer student upon graduation from ACC is 3.2 on a 4-point scale. As measured by GPA, student academic performance at four-year colleges and universities is not statistically different from their performance at ACC.

ACC exceeded its criterion: ACC transfer graduates attending 4-year public Colorado post secondary institution will have cumulative GPAs equal to or exceeding a 3.0 GPA, measured as an average over a five-year period.

Acceptance Rates of ACC Students 1987-1992

Since acceptance rates depend on the type of post secondary institution a student has applied to and the student's intended major, the Accountability Task Force has established no formal goals for acceptance rates of Arapahoe Community College graduate applicants to four-year Colorado public institutions. The following comparison is for information purposes only and is intended to show that almost all Arapahoe Community College students who apply are accepted into Colorado public four-year colleges and universities.

Table 7. Acceptance Rates of ACC Graduate Applicants to Colorado Public Four-year Institutions: 1987-1992

Graduation Year	N	% Accepted
1987		
AA/AS	52	92.3
All Students	120	92.5
1988		
AA/AS	66	93.9
All Students	157	92.4
1989		
AA/AS	61	93.4
All Students	148	91.2
1990		
AA/AS	67	94.0
All Students	146	93.2
1991		
AA/AS	80	93.8
All Students	157	89.9
1992		
AA/AS	95	95.8
All Students	200	91.5

Source: CCCOES Division of Research and Planning from CCHE SURDS extract files.

Results

Since 1987, over 90 percent of ACC graduates who apply to a four-year Colorado post secondary institution have been accepted. It can be concluded that receiving a two-year degree at ACC provides students with access to the four-year colleges and universities.

Table 8. Completion/Persistence Rates of Community College Degree Recipients After Transferring to a Colorado Public Four-year Institution

Year/Degree Type	% Completion/Persistence			
	N	Arapahoe CC	N	State Average
1986				
AA/AS	48	79.2	331	69.2
All Students	91	51.7	685	59.3
1987				
AA/AS	47	85.1	445	74.4
All Students	91	72.5	836	63.7
1988				
AA/AS	42	83.3	469	77.4
All Students	97	61.9	803	67.2
1989				
AA/AS	53	69.8	521	69.6
All Students	104	61.6	874	64.7
1990				
AA/AS	49	65.7	480	73.6
All Students	96	57.3	851	67.9
5-year Average				
AA/AS	48	76.6	449	72.8
All Students	96	61.1	810	64.6

Source: CCCOES Division of Research and Planning From CCHE SURDS extract files.

Results

The five-year average completion/persistence rate for ACC AA/AS students is 76.6 percent. This figure exceeds the ACC criterion of 75%. In addition, it exceeds the five-year average state transfer rate.

Summary of Student Withdrawal Survey of ACC Students: 1991-1993
Evaluation by Total and Course Withdrawal Students

Quality of teaching:

Year	Excellent 1	2	3	4	5	Poor 6	Mean
1991-92	26%	25%	21%	13%	6%	8%	2.7
1992-93	26	25	19	14	9	6	2.7

College course work:

Year	Too Difficult 1	2	3	4	5	Too Easy 6	
1991-92	3%	16%	52%	20%	5%	3%	3.2
1992-93	5	10	36	41	7	1	3.4

Attitude of classroom instructors:

Year	Excellent 1	2	3	4	5	Poor 6	
1991-92	36%	23%	23%	7%	4%	6%	2.4
1992-93	31	26	15	14	7	5	2.6

Attitude of staff, administrators, non-classroom personnel:

Year	Excellent 1	2	3	4	5	Poor 6	
1991-92	33%	23%	23%	9%	10%	2%	2.4
1992-93	–	–	–	–	–	–	–

Satisfaction with Academic Advising:

Year	Satisfied 1	2	3	4	5	Unsatisfied 6	
1991-92	–	–	–	–	–	–	–
1992-93	21%	18%	22%	24%	9%	5%	3.0

Do you currently have plans for additional education? (1992-93)

7%	No, not at this time
61%	**Yes, I plan to re-enroll at ACC**
25%	Yes, I plan to enroll at another college
8%	I am currently undecided about any additional education

Results

Most of the students who withdrew from ACC during the 1992-1993 academic year did so because of personal reasons. The majority were satisfied with the instruction they were receiving and 61% plan to re-enroll at ACC in the future. Thus ACC met its goal: Students who withdraw or drop classes from ACC will express satisfaction with their education experience at the College.

Summary of ACC Student Satisfaction Survey

Three years of data will be gathered before the Accountability Task Force establishes formal goals for these questions. In the meantime, increases and decreases in satisfaction will be monitored from year to year. In 1993, 540 Graduating Students Surveys were mailed to students planning to graduate during the 1992-1993 academic year. Total response rate = 45 percent with 243 surveys returned.

Question 1: ACC has helped me meet the goals I came here to achieve.

	1992	1993
Strongly Agree	—	48%
Agree	—	46
Uncertain	—	4
Disagree	—	1
Strongly Disagree	—	>1

Question 2: How well do you feel ACC prepared you for your chosen occupation or for continuing your education?

	1992	1993
Exceptionally Well	18%	25%
More than Adequately	33	33
Adequately	46	40
Less Than Adequately	2	>1
Very Poorly	2	1

Question 3: If you could start college all over again, would you choose to attend Arapahoe Community College?

	1992	1993
Definitely Yes	32%	39%
Probably Yes	47	47
Uncertain	10	10
Probably No	7	4
Definitely No	4	>1

Question 4: The skills I learned at ACC have enriched my daily life and made me a more complete person.

	1992	1993
Strongly Agree	25%	26%
Agree	53	55
Uncertain	14	14
Disagree	6	5
Strongly Disagree	2	—

Results

Questions 2 through 4 show an increase in the level of satisfaction when compared with 1992 results. Question 1 is new to the survey. Overall, students report a positive experience while attending ACC.

APPENDIX J: Transfer Education Alumni Satisfaction

Phone Survey

[Effort was made to telephone each student who had received an AA or AS degree from June 1991 through December 1992 (students' phone numbers at the time of graduation were used). The following form was used to record information about post-ACC college attendance and current address. The Alumni Satisfaction Survey was mailed to every student contacted in this phone survey who had attended another college since graduating from ACC.]

Name
Last _____ First _____ I ___

Local Mailing Address & Telephone (if applicable)

Street _____

City _____ State _____ Zip _____

Telephone
Home _____ Work _____

Is the person currently attending college? Yes ___ No ___

If "No," Has the person attended college since graduating from ACC?

Yes ___ No ___

Is the person planning to attend college within the next two years?

Yes ___ No ___

If "Yes" (currently attending college),
list name of college, and mailing address if other than above local address.

College _____

Address
Street _____

City _____ State _____ Zip _____

Telephone
Home _____ Work _____

Arapahoe Community College

TRANSFER SURVEY

We would appreciate your taking a few minutes to complete the following survey. Your responses will help us evaluate our program. Please return the survey by **April 5, 1993** to Frank Markley, Arapahoe Community College, P. O. Box 9002, Littleton, Colorado 80160-9002.

1 Current college/university _____

2 What is your major? _____

3 Did you plan to pursue a bachelor's degree when you began attending ACC? Yes ❑ No ❑

4 Was the focus of your studies at ACC the same as your current academic major? Yes ❑ No ❑

5 How many credits have you completed at your current college/university? _____

6 What is your GPA at your current college/university? _____

7 When do you plan to complete your current degree? _____

8 If you plan to pursue an advanced degree, please check which one(s):

MBA ❑ MA/MS ❑ MFA ❑ PhD ❑ EdD ❑

MD ❑ DVM ❑ law degree ❑ Other _____

9 Would you recommend ACC to a friend? Yes ❑ No ❑

Satisfaction with the preparation you received at ACC in the following areas:

	Not Applicable	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
10 Ability to think clearly about a variety of human issues	○	○	○	○	○
11 Ability to read critically (e.g., evaluate information & ideas)	○	○	○	○	○
12 Ability to speak logically (e.g., organize & express information & ideas)	○	○	○	○	○
13 Ability to plan and write well organized compositions	○	○	○	○	○
14 Ability to apply quantitative skills (e.g., interpret charts, graphs & statistics)	○	○	○	○	○
15 Ability to use basic resources of a library to conduct research	○	○	○	○	○
16 Overall satisfaction with your preparation for transfer to your current college/university	○	○	○	○	○

continued on other side

17 What did you find most helpful in your educational program at ACC?

18 What did you find least helpful?

19 Suggestions for improvement?

OPTIONAL

Sex: M ☐ F ☐

Age: _____

How do you prefer to describe yourself?

☐ American Indian or Alaskan Native ☐ Black Non-Hispanic

☐ Asian or Pacific Islander ☐ White Non-Hispanic

☐ Hispanic ☐ Other _____

Name _____

Thank you for your assistance.

ACC HISTORY We have completed the following information for you.

First Enrolled: Sp ☐ Su ☐ F ☐ Year _____

Completed Degree: Sp ☐ Su ☐ F ☐ Year _____

Degree: AA ☐ AS ☐ AGS ☐

Credits completed at ACC: _____ GPA: _____

Summary of Responses to 1992-1993 Transfer Survey
(Total Responses = 55)

Table 1. Mean Differences in Ratings of Satisfaction Items Between Transfer Degrees

Satisfaction with the preparation you received in the following areas (questions 10 - 16):

Area	AA N = 39	AS N = 9	AGS N = 7
Ability to think clearly about a variety of human issues	1.57*	1.86*	2.00*
Ability to read critically (e.g., evaluate information and ideas)	1.76	1.78	2.00
Ability to speak logically (e.g., organize and express information and ideas)	1.66	2.00	1.71
Ability to plan and write well organized compositions	1.58	1.75	2.14
Ability to apply quantitative skills (e.g., interpret charts, graphs and statistics)	1.70	2.00	2.00
Ability to use basic resources of a library to conduct research	1.83	1.87	2.14
Overall satisfaction with your preparation for transfer to your current college/university	1.41	1.78	2.43

* Scale: 1 = Very Satisfied; 2 = Satisfied; 3 = Dissatisfied; 4 = Very Dissatisfied.

Table 2. Comparative Degree Statistics

	AA N = 39	AS N = 9	AGS N = 7	Total All Degrees N = 55
GPA at ACC	3.57	3.27	2.93	3.44
GPA at transfer College	3.57	3.38	3.38	3.52
Credit hours at ACC (mean)	59.8	57.6	48.4	58.0
Credit hours at transfer college (mean)	34.6	48.5	20.2	35.1

Table 3. Question 16: Overall Satisfaction of Students

Area	Rating 1	2	3	4	NA	Mean
Ability to think clearly about a variety of human issues	36%	51%	2%	2%	9%	1.67
Ability to read critically (e.g., evaluate information and ideas)	27	67	—	4	2	1.76
Ability to speak logically (e.g., organize and express information and ideas)	34	58	4	2	2	1.72
Ability to plan and write well organized compositions	36	54	6	—	4	1.70
Ability to apply quantitative skills (e.g., interpret charts, graphs and statistics)	26	54	7	—	13	1.80
Ability to use basic resources of a library to conduct research	27	51	13	2	7	1.90
Overall satisfaction with your preparation for transfer to your current college/university	49	45	2	4	—	1.41

Scale: 1 = Very Satisfied; 2 = Satisfied; 3 = Dissatisfied; 4 = Very Dissatisfied.

Summary of Responses to Other Survey Closed Questions of Interest

8. Future plans in terms of an advanced degree:

MBA	28%
MA/MS	36%
Ph.D.	11%
Law	14%
Other	11%

9. Would you recommend ACC to a friend?

Yes	98%
No	2%

Table 4. Transfer Survey: Open-Ended Question # 17
"Most Helpful"

Count*	%**	Response Category
21	21	Quality of instructors
11	11	Small classes
9	9	Flexible schedule
7	7	Helpful counseling
6	6	"Nothing"
6	6	Friendly atmosphere
5	5	Individual attention
4	4	Curriculum
3	3	Transfer of Credits
3	3	Support staff
3	3	Quality of instruction
3	3	Extra curricular activities
2	2	Quality of facilities/equipment
2	2	Parking
2	2	Location
2	2	Cost
2	2	(Could not be classified)
1	1	Tutors
1	1	Library
1	1	Phone regular
1	1	Financial Aid
1	1	Other senior citizens in classes
1	1	Diverse Population
Total: 97		

* 48 respondents wrote at least one response. Some included more than one area.
** Rounded to nearest whole number.

Table 5. Transfer Survey: Open-Ended Question #18
"Least Helpful"

Count	%	Response Category
13	27	(No comment)
12	25	Counselors
2	4	Some curriculum too easy
2	4	Homosexual activists
2	3	Quality of instructors
1	2	Transfer of credits into ACC
1	2	Student club communications
1	2	Speech degree requirements
1	2	Scheduling conflict & class cancellation - special topics
1	2	Poor ventilation
1	2	Overcrowding
1	2	Multiculturalism
1	2	Lack of evening business hours
1	2	Lack of enough variety of teaching strategies
1	2	Lack of adequate parking
1	2	Instructional support during break (computer centers)
1	2	Inadequate number of weekend classes
1	2	Inadequate library research in Accounting & Finance
1	2	Humanities curriculum
1	2	Frequency and availability of career testing
1	2	Communicating changes in degree requirements
1	2	(Could not be classified)
Total: 48		

Table 6. Transfer Survey: Open-Ended Question #19
"Suggestions for Improvement"

Count	%	Response Category
15	31	(No response)
9	18	Improve counseling process
4	8	"None" / "No improvements"
3	6	More workable transfer process
2	4	Improve curriculum
1	2	Require foreign languages
1	2	Publish instructor ratings
1	2	More weekend classes
1	2	More parking
1	2	Institute classics program
1	2	Improve philosophy classes
1	2	Expand library
1	2	Delete Scantron tests
1	2	Continue to offer classes for non-traditional students
1	2	Computerized registration
1	2	Cap enrollment
1	2	Better writing/english [*sic*] standards
1	2	Become a 4-year school
1	2	Art appreciation for humanities core
1	2	Alumni access to computer lab and library
1	2	Accessibility to facilities over break
Total: 49		

Appendix K:
Graduating-student Satisfaction Survey of Student Services Functions*
(1992-93 Fall and Spring combined)

Student Services Functions	% Using	Mean
Admissions		
Ease of understanding college catalog and schedules	99	1.6
Orientation to ACC	98	1.7
Assistance received by admissions staff	95	1.9
ACC transcript process	80	2.0
Records/Registration		
Assistance received from records/registration staff	97	1.7
Efficiency of registering for classes	99	1.7
Convenience of registration times	99	1.7
Graduation check process	96	2.0
Transfer credit evaluation process	73	2.3
Financial Aid/Veterans Office		
Veterans advising and assistance	27	2.2
Availability of financial aid advisors	56	2.3
Value/Quality of advisement	57	2.5
Counseling		
Services provided by the Resource Center	55	2.1
Ease of setting appointments	69	2.3
Helpfulness of ASSET testing for placement in classes	64	2.3
Quality of vocational/career counseling	59	2.4
Availability of counselors	71	2.4
Counselors concern for your needs as an individual	72	2.4
Quality of academic/transfer advising	61	2.5
Student Activities		
Information Desk	96	1.8
Quality of Social Activities (movies, comedy, concerts)	69	1.9
Recreational Services	46	2.0
Student Newspaper (*Rapp Street Journal*)	90	2.1
Child Development Center (daycare)	25	2.1
On-campus Student Health Center	35	2.1
Student clubs and organizations	47	2.3
Student Government	67	2.6

N = 243

*Items are listed from highest to lowest mean in each category.

Approximately 900 surveys were mailed to graduating students at the end of each semester. As an incentive to complete and return the surveys, each student could exchange the completed survey for an ACC souvenir mug. The response rate was 27%.

A five-point Likert scale ranging from "very satisfied" (1) to "very dissatisfied" (5) was utilized. For purposes of this reporting period, 2.50 was the criterion for acceptable performance in each Student Services area (i.e., means from 1.0 to 2.5 were at or above the criterion).

Appendix L: Adult Education

Table 1. 1992-93 Adult Education Student Satisfaction Survey

Subject Area	Term*	# Surveyed	% Very Satisfied	% Satisfied	% Satisfied or Very Satisfied
Arts & Crafts	U	13	23.1	76.9	100
	F	17	58.5	41.2	100
	W	37	43.2	54.1	97.3
	S	23	34.8	65.2	100
Business	U	36	61.8	35.3	97.1
	F	17	58.8	41.2	100
	W	25	48	32	80
	S	29	34.5	55.2	89.7
Computers	U	21	66.7	28.6	95.3
	F	22	22.7	72.7	95.4
	W	17	47.1	41.2	88.3
	S	10	10	80	90
Do It Yourself	U	No data received			
	F	12	33.3	58.3	91.6
	W	4	75	25	100
	S	11	63.6	36.4	100
Health	U	15	73.3	20	93.3
	F	35	74.3	25.7	100
	W	19	47.4	41.6	89
	S	16	28.8	33.3	100
Home & Family	U	15	26.7	66.7	93.4
	F	13	69.2	23.1	92.3
	W	16	28.8	56.3	85.1
	S	No data received			
Language	U	34	61.8	35.3	97.1
	F	14	35.9	42.9	78.8
	W	17	29.4	41.2	70.6
	S	10	30	70	100
Music	U	3	100		100
	F	3	66.7	33.3	100
	W	6	83.3	16.7	100
	S	No data received			
Prof. Dev.	U	9	33.3	66.7	100
	F	3	33.3	66.7	100
	W	No data received			
	S	No data received			
SGL		3	100		100

(cont'd)

(cont'd)

Self Dev.	U	No data received			
	F	No data received			
	W	No data received			
	S	No data received			
KKT	U	4	50	25	75
	F	No data received			
	W	No data received			
	S	No data received			
Emeritus	U	13	38.5	46.2	84.7
	F	9	44.4	55.6	100
	W	6	83.3	16.7	100
	S	No data received			
Leisure	U	11	63.6	27.3	90.9
	F	10	50	40	90
	W	14	43.9	34.1	78
	S	27	70.4	25.9	96.3
DCAE	U	No data received			
	F	44	63.6	31.8	95.4
	W	40	55	32.5	87.5
	S	47	38.3	53.2	91.5

N = 767 **93.39%**

* U = Summer
F = Fall
W = Winter
S = Spring

Appendix M: Business and Industry

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BUSINESS AND INDUSTRY TRAINING EVALUATION

ARAPAHOE COMMUNITY COLLEGE

FOR OFFICE USE ONLY		
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

Trainer/Instructor: _____

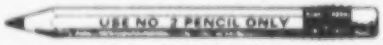
Seminar/Course: _____

Location: _____ Training Date(s): _____

Company Name/Organization: _____

Your Age: _____ Sex: ____ M ____ F

INSTRUCTIONS



- USE A NO. 2 PENCIL ONLY! NO PENS!
- MAKE DARK MARKS THAT FILL THE APPROPRIATE OVALS COMPLETELY.
- ERASE CLEANLY ANY MARKS YOU WISH TO CHANGE.
- MAKE NO STRAY MARKS ON THIS FORM.

Please take time to respond to each question on this evaluation form. Your feedback is important for the improvement of this program in order for us to serve you and your company better.

Please rate the following:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Applicable
1. The objectives were made clear at the beginning of the course/workshop/seminar	5	4	3	2	1	O
2. The objectives were met	5	4	3	2	1	O
3. The course/workshop/seminar built an understanding of concepts and principles	5	4	3	2	1	O
4. The instructor was well prepared for each class meeting	5	4	3	2	1	O
5. The instructor was effective in presenting the subject matter	5	4	3	2	1	O
6. The instructor demonstrated enthusiasm for the subject	5	4	3	2	1	O
7. There was sufficient time for questions and discussion	5	4	3	2	1	O
8. The training facilities were adequate	5	4	3	2	1	O
9. The information and skills learned in this training program were applicable to my current employment	5	4	3	2	1	O
10. Overall I was satisfied with this training	5	4	3	2	1	O

PLEASE RESPOND TO THE QUESTIONS LOCATED ON THE REVERSE SIDE.

PLEASE

DO

NOT

WRITE

IN

THIS

SHADED

AREA

11. Which specific information/skills do you think will help you in the performance of your job? How and why?

12. How would this training have been more responsive to your needs?

Thank you for completing this form.

Wayne Henry, Dean
Community Services
Arapahoe Community College
797-5712

Table 1. Summary of Responses to Question 10:
"Overall I was satisfied with this training."

Course Title	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Intro to C Programming	3	3		1	
Total Quality Management Implementation Training	10	1	1		
Total Quality Management Implementation Training	16	2			
English Composition I	6	2			
Beginning Spanish	2	4			
Probabilistic Thinking with Emphasis on Quality Control	2	5	1		
Surface Mount Technology	4	13	2		
Intro. to WordPerfect 5.1	1	2			
Getting Started with Windows	1	2			
Getting Started with Windows	2	3			
Desktop Publishing with WordPerfect 5.1	3				
Basic Workplace Skills	8	1			
Coach the Coach / Train the Trainer	29	16			
D Base III+	5	5			
Career Development	3	9			
Time Management	8				
Intro to Lotus 1-2-3	1	1			
Intermediate WordPerfect	1	1			
C++ Programming	1	3	1		
Totals	106 (54%)	83 (43%)	5 (3%)	1 (.5%)	0 (0%)

FOLLOW-UP EVALUATION OF
CUSTOMIZED, ON-SITE TRAINING

Company:_____
Course:_____
Evaluator's name:_____ Date:_____

This follow-up evaluation is designed to provide feedback to ACC concerning the quality and practical application of the customized training provided for your organization. Your feedback will be used to strengthen the effectiveness of our customized training as it pertains to the implementation of the training concepts on the job. Your cooperation is appreciated!

1. Did you give input concerning content of the training as it pertained to organization/employee need?
   Yes_____ No_____

2. Did your employees give input concerning their needs?
   Yes_____ No _____

3. Did the training content include practical application of concepts into the job?

To a great extent	To some extent	To a small extent	Not at all

4. Have you observed the use of the training concepts in the work place?

To a great extent	To some extent	To a small extent	Not at all

5. Have you experienced resistance to the implementation of the training concepts in the workplace?

To a great extent	To some extent	To a small extent	Not at all

   Describe:_____

6. Have you observed improvements in performance, productivity or processes which are attributable to you or your personnel as a result of this course?

To a great extent	To some extent	To a small extent	Not at all

7. Do you believe a refresher or follow-up course would be appropriate?
   Yes_____ No_____ If yes, at what time interval (monthly, annually, etc.)_____

Other Remarks

Appendix N: Graduating Students' Satisfaction

Table 1. Graduating Student Survey: 1992-93 Academic Year
Results by Declared Degree

Compared with when you entered ACC, how would you describe your:

	Certificate (n=39)		A.A. Degree (n=41)	
	%*	Mean	%	Mean
Level of general knowledge	91.4	1.74	97.6	1.49
Analytical and problem-solving skills	69.4	2.06	92.7	1.76
Ability to speak and write clearly	69.4	2.11	90.2	1.76
Cultural awareness and application	50.0	2.36	73.2	1.98
Confidence in your academic abilities	80.6	1.89	95.1	1.73

	A.S. Degree (n=25)		A.A.S. Degree (n=126)	
	%*	Mean	%	Mean
Level of general knowledge	95.7	1.65	97.6	1.49
Analytical and problem-solving skills	88.0	1.76	87.1	1.76
Ability to speak and write clearly	80.0	1.88	72.6	2.01
Cultural awareness and application	60.0	2.12	53.2	2.22
Confidence in your academic abilities	92.0	1.56	87.9	1.71

	A.G.S. Degree (n=11)		All Degrees (n=243)	
	%*	Mean	%	Mean
Level of general knowledge	100	1.50	94.8	1.57
Analytical and problem-solving skills	100	1.50	86.1	1.79
Ability to speak and write clearly	100	1.40	77.2	1.94
Cultural awareness and application	90.0	1.80	58.6	2.17
Confidence in your academic abilities	100	1.40	89.0	1.71

Scale For Mean: 1 - Much Stronger; 2 - Stronger; 3 - No Change; 4 - Weaker; 5 - Much Weaker.

* Denotes the total percent of respondents who answered "Much Stronger" or "Stronger" for each question.

Table 2. Graduating Student Survey: 1992-93 Academic Year
Results by Declared Degree

	Certificate (n=39)		A.A. Degree (n=41)	
	%*	Mean	%	Mean
Value of information provided by faculty advisors	76.3	1.95	86.1	1.75
Overall quality of instruction in your major area of study	81.8	1.72	94.9	1.51
Attitude of instructors towards students	84.6	1.69	95.1	1.51
Challenge offered by my program	89.4	1.76	95.0	1.55
Variety of courses offered in your major area	81.6	1.87	78.0	1.85
Instructional Computing Center	95.4	1.37	60.9	2.35

	A.S. Degree (n=25)		A.A.S. Degree (n=126)	
	%*	Mean	%	Mean
Value of information provided by faculty advisors	91.3	1.57	87.8	1.83
Overall quality of instruction in your major area of study	99.1	1.52	88.7	1.71
Attitude of instructors towards students	84.0	1.72	92.7	1.57
Challenge offered by my program	92.0	1.56	90.3	1.61
Variety of courses offered in your major area	88.0	1.68	91.2	1.68
Instructional Computing Center	85.0	1.68	79.2	1.86

	A.G.S. Degree (n=11)		All Degrees (n=243)	
	%*	Mean	%	Mean
Value of information provided by faculty advisors	77.8	1.89	85.6	1.81
Overall quality of instruction in your major area of study	81.8	1.91	89.5	1.67
Attitude of instructors towards students	81.8	1.82	90.0	1.61
Challenge offered by my program	81.8	2.00	90.8	1.64
Variety of courses offered in your major area	72.7	2.27	86.3	1.77
Instructional Computing Center	57.1	2.43	78.5	1.89

Scale For Mean: 1 - Very Satisfied; 2 - Satisfied; 3 - Neutral; 4 - Dissatisfied; 5- Very Dissatisfied.

* Denotes the total percent of respondents who reported being "Very Satisfied" or "Satisfied."